

Filtration Group application example – Air filtration

Filtration Group aerosol separator in camshaft production



Factory Equipment

Initial situation

In machining and forming processes, cooling lubricants are used from which oil mist is formed under high pressure and heat development. In order to comply with legal requirements for maximum workplace concentration (MAK) and occupational exposure limits (AGW), to protect the expensive equipment and also to keep the performance level of the machines high in the long term, the cooling lubricant mist must be extracted directly from the machine's working area. Filtration Group offers a specific selection to match the application, space, amount of raw gas and composition of the coolant to the optimum filtration solution.

Solution statement

- Separation of harmful aerosols directly at the machine tool
- Extraction of two machine tools with the unit type ASL 2.2 – volume flow rate up to 900 m³/h
- Ceiling suspension of the unit using threaded rods and Hilti mounting rails



Customer value

- Use of the cost-effective ASL device series
- Space saving in production due to the ceiling suspension of the unit
- Cost saving by the extraction of two processing machines with one aerosol separator
- The clean gas connection of the ASL unit is connected to the central hall extraction system (on site)
- Planning, installation and commissioning by Filtration Group GmbH, Öhringen



Challenge

Our customer is one of the most important manufacturers in the field of camshafts and produces them with highly automated manufacturing processes. The process steps inductive hardening, machining of the cam bore and grinding of the cam form are carried out in fully automated systems. Aqueous coolant lubricant is used for lubrication and cooling in the processing machines. The resulting aerosols are to be extracted directly at the machine with a device. The assembled camshafts are completed on automated production lines. Here, the cams are joined to the tube by a shrink fit.



Info

- Due to lack of space, the aerosol separator should be suspended from the ceiling
- The device is used for the extraction of two machine tools



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